Abstract

The small piece of sound clip can provide lots of information regarding the background of sound when it is captured, different types of sounds in that clip etc. Only human can recognize the sounds from clip if he knows or have heard them before. But then also there is a limitation of humans, human can recognize up to certain amounts of sound clip if more clips are there human will get confused or can’t distinguish them. Hence developed system which will store different sound sample in the database and will recognize the same if comes again in system as an input. The aim of system is to identify the sounds in the given input sound clip, compare the extracted features with database samples and generate the proper text description for relevant sound with the image. Here developed system will convert the musical piece into
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byte array. Then time domain values will be converted into frequency domain with the help of modified FFT formulae. The chunks of 4096 bytes will be created for processing. After which system will store or match the top four values of each chunks in database for insertion or comparison of sound sample. The database is the basic need of the system. I have created database of sound over 800 samples with two distinct indoor and outdoor classes. The system has provision to add more samples in it from manual selection as well as by the recording real time samples. The system is showing the results in descriptive manner for different the different types of samples. If want to discuss the accuracy of system then it is 94% accurate for offline mode while in online mode its accuracy degrades to 50% because of noise issue.

References

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Index Terms

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